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Roll No.

220945

4th Sem.
Branch : Electrical
Sub. : Utilization of Electrical Energy

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (6x1=6)

Q.1 The process of electrolysis is governed by _____. (COE3)

- a) Faraday's Laws b) Joule's Laws
- c) Ohm's Law d) Kirchhoff's Laws

Q.2 Which of the following is used in floodlighting? (COE1)

- a) Sodium vapour lamp b) LED lamp
- c) Incandescent lamp d) Halogen lamp

Q.3 The speed time curve is used in electric traction to study: (COE5)

- a) Acceleration
- b) Speed variations over time
- c) Power consumption d) Braking system

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Q.4 The unit of electroplating process is : (COE3)

- a) Joule b) Coulomb
- c) Farad d) Watt

Q.5 In electric drives. Which type of motor is commonly used for industrial drives? (COE4)

- a) Synchronous moto b) Induction motor
- c) Stepper motor d) DC motor

Q.6 Which of the following is an example of dielectric heating? (COE1)

- a) Microwave heating b) Resistance heating
- c) Arc heating d) Infrared heating

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 _____ Lamps are widely used for street lighting. (COE1)

Q.8 _____ is a process used to protect metals from corrosion by coating them with a layer of zinc. (COE5)

Q.9 Single phase to dc system is also called _____. (COE5)

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- Q.10 IN resistance heating, the heating element is generally made of _____. (COE2)
- Q.11 In electric traction _____ systems are used to collect current from overhead wires. (COE5)
- Q.12 An electric drive consists of a motor and a _____. (COE4)

SECTION-C

Note: Short answer type Questions. Attempt any eight questions out of ten Questions. (8x4=32)

- Q.13 Explain the various terms used in illumination. (COE1)
- Q.14 Compare electric welding with other methods of welding. (COE2)
- Q.15 Explain the process of dielectric heating and its applications. (COE4)
- Q.16 What is the role of motors in electric drives? (COE4)
- Q.17 Discuss the overhead catenary wire system used in electric traction. (COE5)
- Q.18 What are the laws of electrolysis? Explain their significance. (COE3)

- Q.19 Describe the anodizing process and its applications. (COE4)
- Q.20 Discuss the factors influencing the selection of electric motors for industrial drives. (COE3)
- Q.21 What are the advantages of electric traction over conventional methods. (COE5)
- Q.22 Explain the use of electrical circuits in refrigeration and air conditioning systems. (COE3)

SECTION-D

Note: Long answer questions. Attempt any two questions out of three Questions. (2x8=16)

- Q.23 Explain system of track electrification. Explain single phase Ac to Dc system with its advantages and disadvantages. (COE5)
- Q.24 Explain of method of power transfer by using belt drive and by using chain drive method. (COE4)
- Q.25 Describe the process of electro-deposition and its industrial applications. (COE3)